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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/558,150	11/21/2005	Amir Mortazawi	RUN-112-B	2144
48980	7590	09/29/2010	EXAMINER	
YOUNG BASILE 3001 WEST BIG BEAVER ROAD SUITE 624 TROY, MI 48084			LEE, BENNY T	
		ART UNIT	PAPER NUMBER	
		2817		
		NOTIFICATION DATE		DELIVERY MODE
		09/29/2010		ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@youngbasile.com
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Office Action Summary	Application No. 10/558,150	Applicant(s) MORTAZAWI ET AL.
	Examiner Benny Lee	Art Unit 2817

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 30 July 2010.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 52-60 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) 52-60 is/are allowed.

6) Claim(s) _____ is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 30 July 2010 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/GS-68)
Paper No(s)/Mail Date _____

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date _____

5) Notice of Informal Patent Application

6) Other: _____

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(c), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 30 July 2010 has been entered.

The substitute specification filed 30 July 2010 has been found acceptable and thus has replaced the previous specification.

The declaration under 37 CFR 1.132 filed 30 July 2010 is sufficient to overcome the rejection of claims 52-57 based upon Kirino in view of Mantele applied under 35 USC 103.

This application is in condition for allowance except for the following formal matters:

In the Specification:

The disclosure is objected to because of the following informalities found in the substitute specification of 30 July 2010: In paragraphs [0044] & [0051], note that reference labels (L₃, 3C, (N-1)C) do not appear consistent with the labeling in Fig. 2 and thus needs clarification. In paragraph [0044], note that the reference to “2G_{ant}+2, ^{wc}” is vague in meaning and thus needs clarification with respect to the labeling in FIG. 2. In paragraph [0059], note that it is unclear whether the further elaboration of the Fig. 12 graph adequately and properly conveys what is depicted therein and thus needs clarification. In paragraph [0062], it is noted that “tenability” should be correctly spelled as --tenability-- at each occurrence for clarity of description. In paragraph [0070], note that “l₁, l₂, l₃” should be rewritten as -- l₁, l₂, ... l₃-- for consistency with the description in Fig. 27. Note that in the description of the circuits depicted in Figs. 1, 2, 3, 10, 13, 14, 15, 21, all reference labels which are unique to a particular drawing

figure should be corresponding described in the specification for clarity of description. As noted earlier by applicants', any reference label appearing in a particular drawing figure and which has already been described relative to an earlier drawing figure need not be further described. Note that respect to the graphs depicted in Figs. 10, 12, 17, 20, 24 still need further elaboration of important aspects or features depicted by the curves in the respective graphs should be provided (e.g. including a description of the axes of all of the respective graphs, etc) for clarity of description. Appropriate correction is required.

The use of the trademark TMM3 (i.e. paragraph [0057]) has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

In the Drawings:

The drawings are objected to because of the following: Note that the replacement drawings filed 30 July 2010 have been found objectionable since certain drawing figures are still of poor quality (i.e. as compared to the quality of the originally filed drawings), such that certain features and reference labels therein are not discernable as to what they represent (in particular, note Fig. 3, where certain descriptive labels are of a miniaturized size such as to be not discernable in the drawing) and thus a new replacement sheet of the objected to drawings needs to be provided.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

In the Claims:

In claim 52, line 4, note that "an antenna and a shunt impedance" should be rephrased as --a respective antenna and a corresponding shunt impedance-- for an appropriate characterization; line 6, note that "one of which" should be rephrased as --wherein a respective first tunable series impedance-- for an appropriate characterization, & "each of the N plurality of ports, each first" should be rephrased as --adjacent ones of the N plurality of ports, the respective first tunable series-- for an appropriate characterization; line 7, note that "one port coupled to the first tunable impedance" should be rephrased as --one port of the N plurality of ports--; line 9,

note that --extended resonance-- should be inserted prior to “circuit” for consistency in claim terminology.

In claim 53, it is noted that “plurality of impedances” should be rephrased as --tunable series impedance-- for consistency in claim terminology.

In claim 54, line 1, note that --respective first tunable-- should be inserted prior to “series impedance” for consistency in claim terminology; line 2, note that --corresponding-- should be inserted prior to “shunt impedance” for appropriate characterization.

In claims 54, 55, line 2 of each claim, note that “each port” should be rephrased as --adjacent ones of the ports-- at each occurrence for an appropriate characterization.

In claim 55, line 1, note that “each” should be rewritten as --respective ones-- for an appropriate characterization; line 2, note that the parenthesis around the term “series” should be removed as being unnecessary; line 3, note that --corresponding-- should be inserted prior to “tunable capacitor”, respectively for appropriate characterizations.

In claim 56, note that --applied-- should be inserted after “voltage” for an appropriate characterization.

In claim 58, line 1 & claim 60, line 2, it is noted that --series tunable-- should be inserted after “first” for consistency in claim terminology.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

Claims 52-60 are allowable over the prior art of record.

Any inquiry concerning this communication should be directed to Benny Lee at telephone number 571 272 1764.

**/BENNY LEE/
PRIMARY EXAMINER
ART UNIT 2817**

B. Lee